

What are bushfires and why is Australia susceptible to them?

Key

3

Bushfires are **wildfires** which usually take place in bushland areas.

Bushfires tend to be at their most devastating when the **temperatures are high**, the **humidity is low** and the **winds are strong**.

Bushfires devastated Australia in December 2019/January 2020.



A QUIZ ABOUT BUSH FIRES:

True or false?

Australia is prone to bushfires because of its hot, dry climate.





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TRUE.

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' _____ fire in the trees
and bushes of scrubland'.

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- b) an organised
- c) an uncontrollable
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YES – All of these can cause terrible bush fires.



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A QUIZ ABOUT BUSH FIRES:

Approximately, what percentage of bush fires are caused by humans?

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- b) 80%
- c) 75%
- d) 95%

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- b) Loss of human life
- c) Destruction of homes and property
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Bush fire prevention methods include?

- a) Controlled burning
- b) Fuel reduction
- c) Preparing a bush fire plan

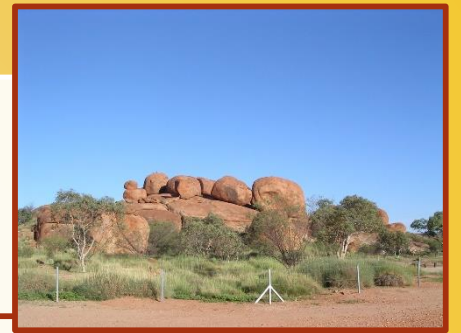
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Yes, all of them are important in minimising damage caused by bush fires.

Why is Australia prone to bushfires?



A very **hot day** during a dry spell
(moisture in the air)

Strong winds

Low humidity

These are the conditions that bushfires thrive on and they use these conditions to spread quickly.

A day with a top temperature of over 40 degrees occurring during a heat wave creates the perfect situation for bushfires to occur. On days or weeks like these councils declare '**total fire ban days**', which means nobody can light a fire of any kind outdoors; this is aimed to prevent bushfires starting by escaping embers or fires getting out of control.

Some other causes have been electricity cables rubbing against trees and sparks from machinery.

Fire seasons around Australia

- ▶ Visit: <http://media.bom.gov.au/social/blog/50/australias-bushfire-seasons/> to see a map that shows the different times of year that the different areas of Australia might generally experience bush fires.
- ▶ **Weather systems work differently across Australia's temperate and tropical regions. Severe bushfire conditions are influenced by a combination of these systems, but in most cases by hot, dry winds blowing from central Australia. The dry summer months are the danger time for southern Australia, while northern Australia is at risk during winter.**

Highest risk areas of Australia

- ▶ Visit: <https://www.thinglink.com/scene/767952133076025347> to see where bush fires are most likely to happen.
- ▶ As you can see, major cities have a high to extreme risk of bushfire.
- ▶ Not only are these areas highly populated, but they have a lot of the country's arable (farming) land.
- ▶ Major fires do happen in central Australia but they offer little to no risk to humans.

Human activity can cause bushfires...

Bushfires can be caused by people who deliberately light them or by people who are burning rubbish on their property and it gets out of control and even by people throwing cigarettes outside of their car windows.

Sometimes “back burning” by fire fighters, aimed at preventing bushfires, can lead to bigger fires due to burning embers that jump into other areas of land, due to weather conditions changing etc.



Bush fire “back burning” image:
<https://theconversation.com/explainer-back-burning-and-fuel-reduction-20605>

Severe heat and lightning strikes can cause bushfires...

On days of extreme heat, many factors can lead to a bushfire.

Sunrays e.g. it could be the sunrays heating some broken glass on the side of the road which causes enough heat to start a fire

In Australia, they have a danger rating for fires that they consider carefully as it suggests how high of a risk fires are at that time. <https://www.abc.net.au/news/2017-12-13/bushfire-danger-rating-system-trialled-summer/9203446>

When there has been a long period of dry weather, land and trees dry out, often the heat from a lightning strike is enough to cause a spark and start a bushfire.

Bush fire image:

<https://www.theguardian.com/australia-news/2019/dec/07/australia-fires-blazes-too-big-to-put-out-as-140-bushfires-rage-in-nsw-and-queensland#img-1>

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Aboriginal People's Use of Fire

It may surprise you, but not all bushfires are disastrous.

The Aboriginal people have used fire to shape their environment and to manage the regions where they live.

They used fire for clearing ground, hunting, signalling, regeneration of plant food and for cooking.

There is also evidence to suggest that fire was used by the Aboriginal people as a means of clearing the undergrowth before the winter rains. This created grassland suitable for animals to graze on and made the land easier to hunt in and to cross. The fires were usually of low intensity and designed to regenerate useful plants rather than to ruin the whole ecosystem.



TASK 1: Create a poster of some precautions that Australians take to avoid the risk of bush fires.

Discard cigarettes safely/no smoking.

**Have a long hose which can reach each corner of the house.
Keep it in good condition.**

Clear guttering's and eaves

Keep gardens maintained clear of long grass and leaves.

Only light BBQs or fires in designated areas.

Put rubbish in the bin or take rubbish home.

Keep a fire extinguisher

Store wood and fuel well away from the house.

Keep zones around the house clear of plants.

Here are some examples – can you think of some images you could draw to go with each of these precautions?:

TASK 2: Imagine you are a safety inspector who specialises in fire protection. It is your job to complete a fire safety report on this campsite. You need to identify areas that are high risk and make recommendations to improve safety.

- 1) Identify and explain 2 high risk area of the campsite which could potentially start a bushfire.
- 2) On the map, put a circle around where you think the emergency evacuation point for the campsite should be? Why did you put it there?
- 3) Make a list of campsite rules that would help to prevent bush fires.

